MARTIN TUCHMAN SCHOOL OF MANAGEMENT
NEW JERSEY INSTITUTE OF TECHNOLOGY

Business Research Methods II
MGMT 782
Spring 2025

Instructor: Jorge E. Fresneda, PhD

Office: 4030 CAB **Phone:** 973-596-8569 (office)

Office Hours: W (CAB 4030) 2:30 – 4:30 pm or by appointment

Email: fresneda@njit.edu (*the best way to contact me*)

Class Time & Location: Wednesdays 6:00 pm – 8:50 pm, CAB 2020

Credit Hours: 3 **Course Prerequisites:** ---

Instructor's personal WebEx room: https://njit.webex.com/meet/fresneda

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Course Description

This course focuses on the application of quantitative methods to address business research questions. An overview of the state-of-the-art quantitative methods in business is provided, including their major areas of application, context, proper "tuning," and limitations. Beyond this, the course will also cover other relevant topics in business data science research, such as ethics, privacy, reliability, and data quality issues.

Course Learning Objectives:

The learning objectives are:

1. To develop a deeper understanding of the role that business research methods play in conducting academic research in business
2. To develop an understanding of some of the most relevant quantitative methods used to conduct academic research in the business discipline
3. Understand why a particular research method may be flawed and how different research strategies complement one another
4. To develop individual-based communication in the area of business research methods
5. To develop critical thinking in the area of business research methods
6. Navigating business research methods landscape including present and future challenges

Textbook and Materials

Textbook: No textbook is required for this course.

Readings: The instructor will provide journal articles and other readings (e.g., book chapters) on Canvas each week. Each reading will be classified either as 'Mandatory Reading' (all students must read these articles before class) or as 'Supplementary Reading' (additional articles to supplement mandatory articles). Mandatory readings will be presented and discussed in class by students and in most cases, student will turn in a summary of them, as specified. If additional materials are needed and they are not provided by the instructor, students must use their UCID and password to download them from NJIT library's electronic databases, such as Academic Source Premier at http://library.njit.edu/.

Program Learning Goals and Objectives (PLGO) and Program Learning Outcomes (PLO): Ph.D.

The program integration of inter-related courses yields the following themes in MTSOM's graduate curriculum. Thus, upon completion of this course, student skills and learning will be augmented in the following areas:

PLGO 1: ABILITY TO INTEGRATE INTERDISCIPLINARY KNOWLEDGE, ADVANCED TECHNOLOGY, AND BUSINESS PRINCIPLES

- PLO 1.1: Master data analytics and problem-solving skills
- PLO 1.2: Apply advanced data science skills for knowledge discovery and complex decision making in business

PLGO 2: THE ABILITY TO CONDUCT INNOVATIVE AND INDEPENDENT RESEARCH

- PLO 2.1: Understand the-state-of-the-art
- PLO 2.2: Identify novel problems, propose and implement solutions, and evaluate the outcomes

PLGO 3: EFFECTIVE COMMUNICATION SKILLS TO COLLABORATE WITH AND DISSEMINATE KNOWLEDGE TO AN INTERDISCIPLINARY AUDIENCE

- PLO 3.1: Master oral communication skills for effective teaching and presentations
- PLO 3.2: Master writing communication skills for effective technical writing

PLGO 4: ABILITY TO ENGAGE IN PROFESSIONAL CONDUCT WITH INTEGRITY AND ETHICAL BEHAVIOR

- PLO 4.1: Exhibit ethical behavior in conducting research and decision making
- PLO 4.2: Exhibit professional behavior

Course Website

Please go to https://canvas.njit.edu/. The Canvas site is where most course materials are posted. Make sure you have an NJIT UCID and password so that you are able to access Canvas. I will use Canvas to post announcements and supplemental materials throughout the semester. **So, please be sure to check the site (https://canvas.njit.edu/) frequently. Please contact helpdesk (973-596-2900) for problems associated with Canvas.**

Course Deliverables/ Final Grade Components

Your grade for this course will be based on the following components:

Component	**Weight**	***Total***
Class Participation	10%	*1 @ 10 = 10 pts*
Class Presentations	20%	*3 @ 20/3 = 20 pts*
Reading Summaries	25%	*12 @ 25/12 = 25 pts*
Lecture N + 1 Presentation	15%	*1 @ 15 = 15 pts*
Lecture N + 1 Paper	30%	*1 @ 30 = 30 pts*
TOTAL		***= 100 pts***

Class Presentations

Students will present, explain, critique, and evaluate a set of readings from the weekly mandatory reading list. Student presentations of readings will include a thorough review of the methods covered, their major areas of application, context, and limitations. They should also provide a description of potential opportunities to improve the methods covered and how to apply them to their specific areas of interest. Finally, students should also raise critical questions about any aspect of the reading of their choosing.

Reading Summaries

Each week, students are required to turn in **AT THE BEGINNING OF CLASS**, a no more than 5-page summary (double-spaced) of the mandatory readings from that week. These short summaries will be graded based on your ability to: (i) concisely summarize the readings, (ii) find opportunities to improve the methods covered and to apply them to your specific area of interest, and (iii) your ability to raise critical questions about any aspect of the readings.

Lecture N+1 (Presentation and Paper)

As a final project, each student should construct a no more a 10-minute presentation summarizing "Lecture N+1". That is, if there was one additional lecture on business research methods, what would it be on? Each student will pick one topic, write up a paper explaining the most relevant aspects of the particular topic (around 20 pages, double-spaced), and prepare a presentation for the last session of the semester.

Final Grades

Grades are a reflection of the level of understanding of course content. Therefore, to achieve the grade of A or B in this class expect to:

- Be active during the entire course.
- Read and understand all the class materials.
- Turn in all course deliverables in a timely and professional manner.
- Do not procrastinate. Do not develop any of the course deliverables when it is already the due date.
- Be an active member of your group and contribute with ideas and suggestions for both the simulation and the final project.

With less preparation and participation expect the grade of C or lower.

Final course grades will be based on the following scale (there will be NO curve):

Grading Scale

A	B+	B	C+	C	F
90%–100%	85%–89%	80%–84%	75%–79%	70%–74%	0%–69%

Email Etiquette

This is a business course and the expectation is that you will conform to appropriate business letter writing practice in all of your email to me. The following are the basics.

- Put the course name (e.g. Management 782 or MGMT-782) in the subject line
- Identify the subject of the e-mail with a brief but descriptive summary of the topic: include a proper salutation (e.g. Professor Fresneda), and the assignment details such as the title, homework, or test.
- Proofread your e-mail for proper sentence structure, capitalization, spelling and punctuation.
- Conclude the e-mail message with a proper closing (e.g. Regards, Sincerely) and your full name.

(Note: Do not e-mail requests for additional grade points unless there is an error in the grading. Please note that any grade discrepancies must be addressed within 2 weeks of the assignment due date. Grades are not 'given out' by the professor; they are 'earned' by the student. So, make sure that you 'earn' a grade that you can live with.)

Late Assignments

Late assignments will not be accepted for grading unless there is a severe illness or an emergency situation. In these cases, legitimate documentation of the emergency must be presented and approved by the office of the Dean of Students before extensions will be granted.

Academic Integrity

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu. I may submit your assignments to *Turnitin* to check for plagiarism if there are clear signs of cheating.

Final Comments

Students registered for this course assume full responsibility for reading and understanding the course policies as stated above.

#	Week of:	Topics	Assignments (in class/before class)
1	Jan 21	-Introduction. -Revisiting rigor and relevance in Business Research.	
2	Jan 27	-Dilemmas and complementarity. -The Importance of Values.	**-Students presentations #1** **-Reading summaries #1**
3	Feb 03	-Data collection: Secondary data in business data science applications	**-Students presentations #2** **-Reading summaries #2**
4	Feb 10	-Basic data analysis: Descriptive statistics. Univariate statistical analysis.	**-Students presentations #3** **-Reading summaries #3**
5	Feb 17	-Bivariate statistical analysis: Differences between two variables.	**-Students presentations #4** **-Reading summaries #4**
6	Feb 24	-Bivariate statistical analysis: Measures of association.	**-Students presentations #5** **-Reading summaries #5**
7	Mar 03	-Multivariate statistical analysis I.	**-Students presentations #6** **-Reading summaries #6**

8	Mar 10	-Multivariate statistical analysis II	**-Students presentations #7** **-Reading summaries #7** **-Lecture N+1 topic proposal**
Mar 17 – 23		**Spring Break**	
9	Mar 24	-Multivariate statistical analysis III	**-Students presentations #8** **-Reading summaries #8**
10	Mar 31	-Introduction to Bayesian methods.	**-Students presentations #9** **-Reading summaries #9**
11	Apr 07	-Machine learning, deep learning and Explainable AI.	**-Students presentations #10** **-Reading summaries #10**
12	Apr 14	-Unstructured data analysis I: Text analytics I.	**-Students presentations #11** **-Reading summaries #11**
13	Apr 21	-Unstructured data analysis II: Text analytics II; sound, image, and video analytics.	**-Students presentations #12** **-Reading summaries #12**
14	Apr 28	-Lecture N+1	**-Lecture N+1 presentations**
May 08 & 09		**Reading days**	
Final Exams Week (May 10 - May 16)			-Lecture N+1 paper submission, due on Thursday 05/15 (by midnight)